alberta pork production handbook

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Alberta
AGRICULTURE
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PROPER USE OF DRUGS FOR SWINE

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A. Introduction

Drugs fall into a number of categories, the most important in swine being anti-bacterial drugs, vaccines, anti-parasitic drugs, hormones, minerals and vitamins. It is important for producers to understand why they are using these drugs, how to use them and some of the problems that can arise through their use.

Before using any drug or vaccine, it is imperative that the user READ THE LABEL. In addition to the box or bottle label, many drugs have a printed insert that contains useful information on the product and usually in more detail than on the label. Since bottle labels tend to become soiled through handling, it is a good idea to maintain a file of inserts of drugs used frequently in the barn office. Producers should ensure that any drug they are using is administered correctly and for the purpose for which it is intended. Special attention should be paid to the following points.

1. Correct dosage

Dosage is usually determined by body weight of the animals being treated and their weight should be estimated as accurately as possible and the dose calculated accordingly. Doubling or tripling the dose on the premise that if 5 cc's does so much good, than 10 cc's should be twice as good, is totally erroneous. If the dose is 5 cc's and there is no response, then the treatment should be changed.

2. Frequency of administration

Some drugs require only once-a-day administration. Others require administration more frequently. The frequency of dosing to maintain an adequate level of the drug is printed on the label and should be adhered to.

3. Duration of treatment

Antibiotic treatments should be continued for at least three days for most infectious diseases. As a rule of thumb, continue treatment for one to two days after the animals appear normal. The suggested duration of treatment is often included on the label or in the package insert.

4. Route of administration

Nearly all drugs in swine are administered either intramuscularly or orally. Intravenous injections are rarely used in pigs and subcutaneous injections are difficult to administer because of the fat layer beneath the skin. Oral administration may be via either feed or water. If water medication is used, then access to all other sources of water must be prevented. Medications aimed at reducing scours or limiting stress are frequently included in the feed.

5. Expiration date

All antibiotics, vaccines and some other products should be used within a limited time after purchase. Always check the bottle and the box in which it is supplied for an expiry date. EXP. 31 03 91 or EXP. 03 91 means that this drug should not be used after March 31, 1991. Deterioration can occur with prolonged storage of many drugs. Antibiotics tend to degrade and harmful breakdown products can form. It is particularly important not to use outdated vaccines because their efficacy can no longer be assured after the expiry date.

6. Withdrawal period

The withdrawal period is the amount of time required by law after administration of **the last dose** of a drug before

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the animal can be slaughtered for human food. All antibiotics have a withdrawal period which varies with the antibiotic, e.g., procaine penicillin has a withdrawal period of five days, whereas penicillin and streptomycin combined has a withdrawal period of 30 days. Some other drugs also have a withdrawal period, e.g., ivermectin has a 28 day withdrawal period in swine. All anti-bacterial feed additives also have a withdrawal period.

7. Storage requirements

Different types of drugs have different types of storage requirements. Vaccines and some antibiotics require refrigeration i.e. storage in between 2°C and 7°C (35° to 45°F). Other drugs should be stored in a cool place, i.e., between 7°C and 15°C. All drugs should be protected from freezing and excessive heat. Medicated feed should be stored separately from non-medicated feed. Any special storage requirements for a particular product are usually clearly indicated on the label.

8. Extra label use

Extra label use of a drug refers to either exceeding the dose stated on the label or the use of that drug in a species for which it has not been cleared. Any person using a drug in an extra label manner is entirely responsible for its use. Withdrawal times are established using the dose printed on the label. Doubling the dose does not necessarily double the withdrawal time; it may be tripled or even longer. Withdrawal times for doses exceeding label dosage are completely unknown. There is also some risk in administering drugs not cleared for use in swine. Again no withdrawal time will have been established and there is always a risk of toxic or other side reactions for which there will be no warning on the label.

9. Mixing of drugs

Drugs should never be mixed in the same syringe or given to an animal at the same time, unless they are completely compatible. Some drug combinations are in fact antagonistic, i.e., they work against each other and the action of one is completely nullified by the other. If two drugs need to be given to an animal and there is any doubt to their compatibility, consult a veterinarian.

10. Multidose vials

Particular care should be taken with multidose vials in which the product may be used on more than one occasion over a period of days or even weeks. In such cases the bottle stopper should be disinfected before use each time and it is a good idea to use two needles. One needle is inserted into the bottle and remains there, while the other is used to inject the pigs. This will considerably reduce the risk of contaminating the product.

B. Conclusion

Drugs and vaccines are a necessary part of modern hog production; however, they should not be used indiscriminately and label instructions should always be followed. The responsible use of drugs is in the hands of everyone connected with livestock production including the producer, the veterinarian and the feed manufacturer. If producers have any concerns regarding drug use, they should consult their veterinary practitioner.

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